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IN THE CLAIMS:

↙ Please cancel claims 15-25 without prejudice.

Please add new claims 26-37 as follows:

9 Claim 26. (New) A coating for absorption of neutrons generated in a nuclear reaction of radioactive materials, comprising an element having a high neutron capture cross-section embedded in a matrix of an electrolytically precipitable metallic element, wherein said coating is electrolytically precipitated from a dispersion bath on a base material.

Claim 27. (New) The coating of claim 26, wherein said element having said high neutron capture cross-section is embedded in said matrix of said metallic element in a concentration of more than 40% by volume.

Claim 28. (New) The coating of claim 27, wherein said element having said high neutron capture cross-section is embedded in said matrix of said metallic element in a concentration up to about 60% by volume.

Claim 29. (New) The coating of claim 26, wherein said element having said high neutron capture cross-section includes an electrically conductive compound.

Claim 30. (New) The coating of claim 29, wherein said electrically conductive compound is a metallic compound.

Claim 31. (New) The coating of claim 26, wherein said element having said high neutron capture cross-section is an element selected from the group consisting of boron, gadolinium, cadmium, samarium, europium and dysprosium.

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Claim 32. (New) The coating of claim 31, wherein said element having said high neutron capture cross-section is an isotope of at least one of said elements selected from the group consisting of boron, gadolinium, cadmium, samarium, europium and dysprosium.

Claim 33. (New) The coating of claim 32, wherein said element having said high neutron capture cross-section is in the form of an isotope having an augmented neutron capture cross-section.

21 Claim 34. (New) The coating of claim 26, wherein said matrix of said electrolytically precipitable metallic element is an element selected from the group consisting of nickel, cadmium, and copper.

Claim 35. (New) The coating of claim 26, characterized in that said coating is electrolytically precipitated on prefabricated base material compounds.

Claim 36. (New) The coating of claim 26, characterized in that said coating is electrolytically precipitated on prefabricated finished units of a base material.

~~Claim 37.~~ (New) The coating of claim 26, characterized in that said coating is electrolytically precipitated on an inorganic base material including stainless steel, boron steel, titanium, aluminum, and nickel, and alloys of at least one of the foregoing base materials.